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ABSTRACT

The document reports on activities of the Urban Observatory Outreach Project, a program designed to provide screening, diagnosis, and followup services for preschool children with communication problems: to provide training and technical assistance to teachers of handicapped preschool children: and to disseminate printed and audiovisual materials. Section I, on the screening of approximately 2,000 children, addresses participating centers, the protocol used, results of screening, speech and language handicaps, visual motor problems, confirmation of problems, followup and training, regular day care centers, special day care centers, and evaluation of day care centers. Considered in a second section is training and technical assistance in public school kindergartens for such areas as identification of communication problems, strategies to enhance learning of communicatively impaired children, and strategies teachers can use to encourage parents to enhance their child's learning and development. Two final sections address the increase in demand for materials as part of dissemination and additional outreach activities. Noted among results in a summary are that there are a significant number of children in the population studies for whom specialized educational services are needed, that 22% of the children screened in regular day care centers and 29% of the children screened in special day care centers failed the hearing screening, and that a total of 46 teachers in rural public school kindergartens received training and technical assistance. (SBH)

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FINAL PERFORMANCE REPORT

INTERSECT
OUTREACH PROJECT

July 1, 1978 - June 30, 1979

Grant No. GOO 7801852
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INTRODUCTION

As outlined, the Urban Observatory Outreach Project chose to limit its functions to three areas in which it has unique competence:

(1) the provision of screening, diagnosis, and follow-up services for preschool children with communication problems;

(2) the provision of training and technical assistance to teachers of handicapped preschool children;

(3) the dissemination of printed and audiovisual materials.

The project has successfully planned and undertaken activities in these areas.

In reviewing the project's accomplishments during the past funding year (July 1, 1978 through June 30, 1979), it is important to make explicit the choice of target groups and work-scope which was made last year. While Tennessee has had for several years state legislation (Law #839) mandating the provision of services to the handicapped, this legislation has not been fully funded or implemented. Under this law, the state is to provide services to handicapped individuals, ages four through twenty-one, with services permitted to the three-year old if the child is diagnosed as "deaf". However, because of other demands upon the state Department of Education, a relatively

low priority has been placed on services to the preschool handicapped.

The public school kindergartens have begun to incorporate handicapped children into their classrooms. With these children in their classrooms, many teachers are confused due to the lack of training in teaching children with special needs. The state Department of Education agreed that their kindergarten teachers wanted and needed training in working with communicatively-impaired children and their parents and requested that the services of Outreach be extended to kindergarten teachers, especially those in rural areas of Tennessee where resources are not readily available. Thus, a pilot group of kindergarten teachers became a major target group for the 1978-79 Outreach Project.

With the introduction of Title XX monies, day care programs across the state have gained an important source of funding, one which is helping them to extend their services to an increased number of children from low-income environments. Thus, day care in Tennessee has emerged as a major provider of services to preschool children, including preschool handicapped children. The state Department of Human Services licenses over 1400 agencies, which provide care to approximately 53,000 children. The same department, which is responsible for the administration of Title XX funds, has entered into group

contracts with approximately 50 day care agencies across the state. Some of these day care providers serve a population entirely made up of professionally diagnosed handicapped children (plus youth and some adults). The majority, however, serve a mixture of non-handicapped and handicapped children. An issue that intrigued the Commissioner of the Department of Human Services, as well as ourselves, was "What proportion of the children in regular day care are at risk with regard to their communication abilities?" Because speech and language disorders are known to be the largest class of handicapping conditions and because even a mild problem can have serious long-term implications in terms of a child's continued learning and academic progress, the Department of Human Services encouraged us to continue to provide screening, diagnosis, and follow-up services. They, like us, were very impressed by the previous year's results of such an effort... and in the implications of developing a workable, cost-effective system, which might identify young children with special needs and begin the process of helping teachers and families to meet those special needs. Thus, the workscope involving the continuation of screening and follow-up in day care centers emerged.

It should also be noted that the focus on the preschool teacher as a key agent affecting the daily life of the young child in day care was central to our thinking and planning.

Many children in day care are dropped off early in the morning and may remain until late in afternoon, when a working parent again calls for his/her child. Children in day care often have more exposure to the teaching staff than they do to their parents.

The teacher is also the individual, who is going to bear the day-to-day direct responsibility for seeing that the young child with a handicapping condition gets necessary specialized attention. This is especially true in the rural areas of Tennessee, which have few (if any) special education personnel on staff and which are isolated from the nearest available professional resources (such as ear, nose, and throat doctors, hearing and speech clinics, physical therapists, etc). Thus, we felt that our workscope must do more than point out the children in day care who needed specialized services and specialized educational management. We felt that we must see that teachers gain additional knowledge and skills in relating to the handicapped children present every day in their classrooms. Thus, the screening, referral process, and teacher-oriented follow-up training were seen as integral aspects of a total plan to provide the beginnings of a <u>system</u> of services.

Screening

Using the protocol proven in the screening of over 25,000 Head Start preschool children over a three-year period and in the screening of over 2,000 day care preschool children in Tennessee (77-78), the Outreach Project extended screening and follow-up services to preschool programs in Tennessee. A total of 1,641 children were screened for speech, language, hearing, and visual motor problems. As proposed, the Outreach Project staff traveled to the centers to provide services. The following provides more information:

Type of Center	Number Proposed	Number Actually Serviced
Regular Day Care*	15	17
Special Day Care*	6	6
Head Start**	0	2
TOTAL	21	25

* "Special" day care centers were those which served a known population of handicapped children. "Regular" day care centers were "community" day care centers serving a mix of children.

** Screening was conducted in the Head Start centers at the direct request of these centers. The Outreach Project was reimbursed by the Head Start programs for the cost of materials utilized for screening and for travel expenses incurred in conducting the screening in these centers. See additional Outreach Activities for more information on Head Start Centers.

Participating Centers

Regular Day Care:

Grace M. Eaton
Nashville, Tennessee

Pikeville Day Care Center
Pikeville, Tennessee

Dayton Day Care Center
Dayton, Tennessee

Dunlap Day Care Center
Dunlap, Tennessee

McNeilly Day Home
Nashville, Tennessee

Jellico Housing Authority Day Care Center
Jellico, Tennessee

Nashville Child Center
Nashville, Tennessee

Calloway Day Care Center
Morristown, Tennessee

Community Child Care
Franklin, Tennessee

Sulphur Springs Day Care Center
Morristown, Tennessee

Tullahoma Day Care Center
Tullahoma, Tennessee

Knoxville Child Development*
Knoxville, Tennessee

Forest Hills Day Care Center
Athens, Tennessee

Donner-Belmont Day Care Center
Nashville, Tennessee

* serving more than one center

St. Luke's Day Care Center
Nashville, Tennessee

Middle Tennessee State University Day Care Center
Murfreesboro, Tennessee

Clinch-Powell Educational Cooperative
Tazewell, Tennessee

Special Day Care:

Aveyron Day Care Center
Morristown, Tennessee

Shelbyville-Bedford County Child Development Center
Shelbyville, Tennessee

Easter Seals Training Center
Memphis, Tennessee

KIDS, Incorporated
Crossville, Tennessee

Dawn of Hope Rehabilitation Center
Johnson City, Tennessee

South Pittsburg Day Care Center
South Pittsburg, Tennessee

Outreach strived to provide screening services to centers without easily accessible screening, referral, and therapeutic services. The following chart depicts the distribution of centers.

Type of Center	Rural	Suburban	Urban
Regular Day Care	9	2	6
Special Day Care	4	0	2
Head Start	1	0	1
TOTAL	14	2	9

PROTOCOL USED IN SCREENING

Description of Screening tests:

The screening consisted of four elements; hearing, speech, language, and visual-motor skills. Whenever possible, all four elements of the screen were administered to each child.

Hearing Screen:

Hearing screening was accomplished in a manner which is widely accepted and practiced. A pure tone audiometer was used and testing was done in the most quiet site available.

A 25dB signal was presented at 250, 500, 1000, 2000, and 4000 Hz. A child who failed two frequencies in either or both ears required further testing; therefore, a threshold test by both air and bone conduction was administered immediately.

Tympanometry was conducted on all children, using an electro-acoustic impedance bridge to further confirm the diagnosis of possible hearing problems. According to Bluestone, Berry, and Paradise, 1973, this instrument is the "single most powerful tool at our disposal in the assessment of otitic disorders in children."[1]

1. Bluestone, C.D., Berry, Q.C., and Paradise, J.L. "Audiometry and Tympanometry in Relation to Middle Ear Effusions in Children", Laryngoscope, 83, 1973, pp. 594-604.

If a child's hearing could not be tested in the traditional manner using pure tone audiometry, the Infant Hearing Cassette Screening System was employed. This screening device was used successfully in the past with very young children (under three years of age) or with youngsters otherwise unable to give the voluntary responses required for pure tone audiometric hearing testing. The cassette system has sixteen sounds, chosen for their interest value to young children. The child is closely watched during presentation of each stimuli and behavioral responses indicating that the child hears the sound are noted on the testing form.

The Infant Hearing Cassette Screening System proved to be valuable with the very young day care child and with the multi-handicapped child.

Speech Screen:

The first level articulation screen occurred when the examiner engaged the child in conversation and observed the child's speech. If a significant number of errors were observed, the child was given the Goldman-Fristoe Test of Articulation developed by R. Goldman and M. Fristoe (American Guidance Service, Minneapolis, Minn.). The Sounds-in-Words subtest of the Goldman-Fristoe was used to perform in-depth testing of the child's articulation skills. This test is widely used in speech and hearing centers and is a reliable test instrument.

During the informal testing employed with all children, the examiner also gave particular attention to the child's voice and fluency. The child's mouth, tongue, teeth, and palate were examined for any gross anomaly or malfunction.

Language-Syntax Screen:

The device used for the language-syntax screen consisted of thirteen sentences which the child was asked to repeat one at a time. If he missed any portion of the sentence (eliminating an article for example) the entire sentence was counted as an error. Thus, the maximum number of errors possible was thirteen.

These sentences were used by Brown and Frazer (1964) in their studies of children's language acquisition. The child's ability to correctly imitate the sentences appeared to be developmental in nature, they concluded. That is, with increasing maturation and mastery of linguistic processes, the more accurate a child's ability to imitate the sentence stimuli.

The sentences used in screening appeared in Brown, R. and Fraser, C. The Acquisition of Syntax, Monograph, So. Res. Child Development, 29 (1), 1964, pp. 43-79.

Visual Motor Integration Screen:

The Developmental Test of Visual Motor Integration developed by Keith E. Berry and Norman A. Buktenica (Follett Educational Corporation, Chicago, Ill.) was used as the screening test for

visual-motor integration. This test attempts to measure the degree in which visual perception and motor ability integrate in young children. There are twenty-four geometric forms which the child is asked to reproduce, one at a time. The forms are of increasing complexity, and there are age norms, sex norms, and scoring samples included in the test manual.

With the special day care population, the regular screening protocol was oftentimes inappropriate. There, the Outreach Project staff administered other tests to assess speech and language development, such as the Peabody Picture Vocabulary Test, Developmental Activities Screening Inventory, Communicative Evaluation Chart, Zimmerman Preschool Language Scale, and the Preschool Attainment Record.

SCREENING RESULTS

TOTAL NUMBER OF CHILDREN SCREENED

Type of Center	Number of Centers	Number of Children Screened
Regular Day Care	17	811
Special Day Care	6	258
Head Start	2	572
TOTAL	25	1,641

PREVALENCE OF SPEECH AND LANGUAGE HANDICAPS

Type of Center	Number of Children Screened	%of Children Failing Screen
Regular Day Care	736	10%
Special Day Care	79	35%
Head Start	584	11%
TOTAL	1,399	56%

PREVALENCE OF SPEECH AND LANGUAGE HANDICAPS ACCORDING TO SEX

Type of Center	% of Failures Male	% of Failures Female
Regular Day Care	77%	23%
Special Day Care	80%	20%
Head Start	59%	42%

PREVALENCE OF SPEECH AND LANGUAGE HANDICAPS ACCORDING TO AGE AND SEX

Type of Center

Age	Regular DCC		Special DCC		Head Start	
	Male	Female	Male	Female	Male	Female
1 yr.-1 yr.11 mo.	1%	0	4%	0	0	0
2 yr.-2 yr.11 mo.	1%	7%	0	0	0	0
3 yr.-3 yr.11 mo.	32%	13%	50%	8%	14%	10%
4 yr.-4 yr.11 mo.	32%	0	18%	4%	32%	24%
5 yr.-5 yr.11 mo.	11%	3%	8%	8%	13%	8%

PREVALENCE OF SPEECH AND LANGUAGE HANDICAPS IN REGULAR DAY CARE

Type of Problem Classified by Sex

Screening Section Failed	% Failed		Total % Failed
	Male	Female	
Articulation	10%	3%	13%
Voice	5%	7%	12%
Fluency	1%	0	1%
Language	6%	0	6%
Articulation & Fluency	1%	0	1%
Language & Articulation	54%	13%	67%

PREVALENCE OF SPEECH AND LANGUAGE HANDICAPS IN REGULAR DAY CARE CENTERS

Type of Problem Classified by Age and Sex

Type of Problem	Sex	Age					
		1yr-1yr 11mo	2yr-2yr 11 mo	3yr-3yr 11 mo	4yr-4yr 11 mo	5yr-5yr 11 mo	6 and older
Articulation	male	0	0	0	9%	1%	0
	female	0	0	0	3%	0	0
Voice	male	0	0	0	4%	1%	0
	female	0	0	4%	3%	0	0
Fluency	male	0	0	1%	0	0	0
	female	0	0	0	0	0	0
Language	male	0	0	0	6%	0	0
	female	0	0	0	0	0	0
Articulation and Fluency	male	0	0	1%	0	0	0
	female	0	0	0	0	0	0
Language and Articulation	male	1%	1%	30%	13%	9%	0
	female	0	0	3%	7%	0	3%

PREVALENCE OF SPEECH AND LANGUAGE HANDICAPS IN SPECIAL DAY CARE

Type of Problem Classified by Sex

Screening Section Failed	% Failed		Total
	Male	Female	% Failed
Articulation	4%	0	4%
Language	22%	4%	26%
Language and Articulation	50%	4%	54%
Language, Articulation, and Voice	4%	12%	16%

PREVALENCE OF SPEECH AND LANGUAGE HANDICAPS IN SPECIAL DAY CARE CENTERS

Type of Problem Classified by Age and Sex

Type of Problem	Sex	Age					
		1yr-1yr 11 mo	2yr-2yr 11mo	3yr-3yr 11mo	4yr-4yr 11mo	5yr-5yr 11mo	6 and older
Articulation	male	0	0	0	4%	C	0
	female	0	0	0	0	0	0
Language	male	4%	0	14%	0	4%	0
	female	0	0	0	0	4%	0
Language and Articulation	male	0	0	36%	10%	4%	0
	female	0	0	4%	0	0	0
Language Articulation and Voice	male	0	0	0	4%	0	0
	female	0	0	4%	4%	4%	0

PREVALENCE OF SPEECH AND LANGUAGE HANDICAPS IN HEAD START

Type of Problem Classified by Sex

Screening Section Failed	% Failed		
	Male	Female	Total % Failed
Articulation	8%	7%	15%
Voice	6%	2%	8%
Fluency	2%	0	2%
Language	9%	7%	16%
Language & Articulation	33%	15%	48%
Language & Voice	0	7%	7%
Language, Articulation, & Voice	0	2%	2%
Articulation and Fluency	0	2%	2%

PREVALENCE OF SPEECH AND LANGUAGE HANDICAPS IN HEAD START

Type of Problem Classified by Age and Sex

Type of Problem	Sex	Age		
		3 yr - 3 yr 11 mo.	4 yr- 4 yr 11 mo.	5 yr - 5 yr 11 mo.
Articulation	male	2%	3%	3%
	female	3%	4%	0
Voice	male	0	4%	2%
	female	0	2%	0
Fluency	male	0	2%	0
	female	0	0	0
Language	male	3%	4%	2%
	female	2%	3%	2%
Language and Articulation	male	9%	18%	6%
	female	2%	11%	2%
Language and Voice	male	0	0	0
	female	3%	2%	2%
Language, Articulation and Voice	male	0	0	0
	female	0	2%	0
Articulation and Fluency	male	0	0	0
	female	0	0	2%

SUMMARY OF PREVALENCE OF SPEECH AND LANGUAGE HANDICAPS

In Regular Day Care centers, over three times as many males failed the speech and language screen than females. Of those males that failed, most were either 3 or 4 years of age (32% in each age group.) Of the 23% of the females that failed the speech and language screen, a majority were 3 years of age. The most common item(s) failed were both Language and Articulation (64% failed both tests). Articulation or voice alone were the next most prevalant (13% and 12% respectively). More females than males failed only the voice section of the screen. Thirty percent (30%) of the speech and language failures were 3 year old males who failed the language and articulation sections.

In the Special Day Care Centers, 35% of the children tested failed the speech and language section of the screens. Four times as many males failed the speech and language section than females. The most prevalent age that failed was the 3 year old male group. Fifty-four percent (54%) of all children who failed the speech and language sections of the screen failed both language and articulation. The second most prevalent screening section failed was language only. More females than males failed the language, articulation, and voice sections of the screen. As was found in regular day care centers, the three year old male failing both language and articulation was

the most common finding.

In Head Start Centers, the percentage of failures (11%) was similar to that found in Regular Day Care centers. Again, more males than females failed the speech and language section of the screen; however, the percentages are not significantly different (58% males, 42% females). Children who failed both the language and the articulation sections of the screen represent the majority. As was also found in the other target groups, more males than females failed these sections. The four year old was the most common age group to fail this section (unlike the 3 year olds in Regular and Special Day Care). There was more variety in the sections of the screen failed in the Head Start population. Finally, more males than females failed the voice section (unlike the previous two target groups).

Major Findings from the Speech and Language Screening Effort

1. More males than females failed the speech and language section of the screen
2. Both language and articulation sections were failed most often
3. More females than males failed the voice section in the day care populations
4. More children in Special Day Care Centers failed the speech and language section than in Regular Day Care or Head Start Centers

5. In the day care populations, the three year old male failed the screen most often
6. In Head Start, the four year old male failed the screen most often.

PREVALENCE OF HEARING HANDICAPS

Type of Center	# of Children Screened	% Failing
Regular Day Care	811	22%
Special Day Care	258	29%
Head Start	572	8%
TOTAL	1,641	59%

PREVALENCE OF HEARING HANDICAPS ACCORDING TO SEX

Type of Center	% of Failures Male	% of Failures Female
Regular Day Care	57%	43%
Special Day Care	66%	34%
Head Start	63%	37%

PREVALENCE OF HEARING HANDICAPS ACCORDING TO AGE AND SEX

Age	Type of Center					
	Regular Day Care		Special Day Care		Head Start	
	male	female	male	female	male	female
0-11 mo	2%	1%	0	0	0	0
1yr-1yr11mo	4%	5%	3%	1%	0	0
2yr-2yr11mo	3%	4%	8%	0	0	0
3yr-3yr11mo	18%	11%	18%	12%	4%	13%
4yr-4yr11mo	19%	14%	13%	4%	29%	39%
5yr-5yr11mo	8%	5%	4%	5%	4%	11%
6 yr & Older	3%	3%	20%	12%	0	0

PREVALENCE OF HEARING HANDICAPS

Type of Test(s) Failed

Section of Screen Failed	% Failed		
	Regular DCC*	Special DCC*	Head Start
Tympanometry only	21%	12%	9%
Tone Screen only	7.5%	12%	7%
Tympanometry and Tone Screen	64%	65%	27%
Tympanometry - did not test tones	6%	7%	0
Tones - did not test tympanometry	1.5%	4%	57%

* Day Care Center

SUMMARY OF PREVALENCE OF HEARING HANDICAPS

In Regular Day Care Centers, more males than females failed the hearing section of the screen. Those that failed most often were 3 and 4 year old children. The most common test(s) failed were both Tympanometry and Tone screen, suggesting that most hearing losses were conductive in nature.

In the Special Day Care Center population, twice as many males than females failed the hearing screen. The most common age groups that failed were the 3 year old group and the 6 years and older group. As was true with the regular Day Care group, failures of both Tympanometry and Tone testing was most common.

In Head Start, approximately twice as many males than females failed the hearing screen. The four year old children failed most often. The most common test failed was tones; however, tympanometry was not used in most centers.

Major Findings from the Hearing Screening Effort

1. More males than females failed the hearing screen (2:1 ratio in Special Day Care and Head Start Centers).
2. The most common tests failed were both the Tympanometry and Tone sections, suggesting conductive type hearing losses.

3. Forty-two percent of those that failed, failed the tympanometry section only. These children passed the tone test with probable middle ear pathology. The use of tympanometry in screening is crutial to identify all hearing problems.

PREVALENCE OF VISUAL MOTOR PROBLEMS

Type of Center	# of Children Screened	% Failing
Regular Day Care	736	27%
Special Day Care	55	36%
Head Start	584	36%

PREVALENCE OF VISUAL MOTOR PROBLEMS
ACCORDING TO SEX

Type of Center	% of Failures Male	% of Failures Female
Regular Day Care	54%	46%
Special Day Care	75%	25%
Head Start	44%	56%

PREVALENCE OF VISUAL MOTOR PROBLEMS IN REGULAR DAY CARE ACCORDING TO AGE, SEX AND HANDEDNESS

Age	Male		Female	
	Right	Left	Right	Left
2yr-2yr.11 mo.	1%	0	1%	0
3yr-3yr.11 mo.	12%	2%	5%	0
4yr-4yr 11 mo.	18%	2%	16%	1%
5yr-5yr.11 mo.	8%	2%	13%	1%
6yr-6yr.11 mo.	8%	1%	8%	2%

PREVALENCE OF VISUAL MOTOR PROBLEMS IN SPECIAL DAY CARE ACCORDING TO AGE, SEX, AND HANDEDNESS

Age	Male		Female	
	Right	Left	Right	Left
3yr-3yr. 11 mo.	30%	10%	0	0
4yr-4yr. 11 mo.	25%	0	10%	0
5yr-5yr. 11 mo.	10%	0	15%	0

PREVALENCE OF VISUAL MOTOR PROBLEMS IN HEAD START ACCORDING TO AGE, SEX, AND HANDEDNESS

Age	Male		Female	
	Right	Left	Right	Left
3yr-3yr. 11 mo.	6%	1%	5%	1%
4yr-4yr. 11 mo.	26%	2%	38%	2%
5yr-5yr. 11 mo.	6%	3%	8%	2%

SUMMARY OF PREVALENCE OF VISUAL MOTOR PROBLEMS

In the Regular Day Care population, 27% of the children failed the screen. There was no significant difference in performance between sexes. A majority of those children who failed were right-handed and the 4 year old was the most common age group that failed.

Thirty-six percent (36%) of those screened in Special Day Care Centers failed the Visual Motor Screen. Three times as many males than females failed the screen. As was true in the Regular Day Care population, most of those who failed were right handed. The 3 year old and 4 year old age groups failed more often than the 5 year old age group.

In the Head Start population, 36% of those tested failed the Visual Motor screen. There was not a significant difference between the sexes (56% vs 44%). The four year old was the most common age group to fail.

Major Findings from the Visual Motor Screening Effort

1. There was a high percentage of Visual Motor failures in this preschool population.
2. More males than females failed the screen.
3. The 4 year old was the most common age group to fail the screen
4. A majority of the children who failed were right-handed.

After the screening of the children, it was necessary for each child who failed any one of the tests to be referred to the appropriate health or health-related service for confirmation. For those children who failed the hearing section of the screen, a medical doctor's examination was necessary to confirm or rule out middle ear or inner ear pathology and to provide treatment, if necessary. Children who failed the speech and language section of the screen were referred for comprehensive speech and language evaluations at a speech and hearing clinic. Children who failed the visual motor section of the screen were given special help in the classroom.

Confirmation of Hearing Problems

Type of Center*	% of Failures who had confirmed problems
Regular Day Care	88.3 %
Special Day Care	89.75%

Confirmation of Speech and Language Problems

Type of Center	% of Failure who had confirmed problems
Regular Day Care	77.1 %
Special Day Care	100 %

* Head Start provided its own follow up Services; therefore, no data was collected from this population

FOLLOW-UP AND TRAINING*

Results of the screening process were communicated to the staff immediately upon completion of the screening in each site and followed with a written summary report within a week after screening. During this meeting, the day care center staff developed a written plan of action for each child who failed any of the screening tests. (See Appendix)

Center staffs assumed the major responsibility for seeing that each child who failed the hearing, speech, or language screening tests secured appropriate medical and/or therapeutic management. Usually, conferences were set up with the childrens' parents to discuss management. In other cases, the center staff referred the child to the local health department or state Speech and Hearing Division for services. In a few centers, a speech pathologist was already employed, who could provide continuing management. Outreach Project staff are monitoring this follow-up process and providing assistance.

Each regular day care center received one follow-up visit for training and technical assistance. The special day care centers received two such follow-up visits.

Outreach staff travelled to the day care centers to provide on-site training and technical assistance to meet the following objectives:

*Head Start was not included / proposed to receive Follow-up services

(1) to determine what steps of the Written Plan of Action have been accomplished or are in the process of being accomplished;

(2) to demonstrate management, materials, and special considerations for children with communication problems in the preschool classroom setting;

(3) to increase diagnostic awareness of communication disorders in teachers and to familiarize teachers with an overview of established preschool programs such as the PLDK, PEEK, etc.

(4) to meet the individual needs of special children enrolled in day care settings including the hearing impaired, cerebral palsied, or multiply-handicapped child.

Follow-Up and Training Regular Day Care Centers

Regular day care centers received one follow-up visit. Results indicate that the teachers accomplished an average of 86.4% of their Written Plan of Action by the follow-up visit for those children who failed hearing and an average of 75.6% of the Written Plan of Action for those children who failed the speech and language screening tests. For those children who needed other evaluations, i.e. neurological, the teachers accomplished 100% of the steps in the Written Plan of Action. These figures are significantly higher than the follow-up results obtained last year, indicating improvement and

increased services rendered to handicapped children. This is attributed to the concentrated effort by and the success of the Outreach Project Staff 1) to heighten teacher awareness of possible communicative impairments and necessary follow-up services and 2) to provide a systematic, concrete approach to follow-up primarily in the form of a Written Plan of Action for each child who failed the screen. The following chart provides specific information on the results of the follow-up to each of the regular centers.

RESULTS OF FOLLOW-UP - REGULAR DAY CARE

Center	% of Steps of Written Plan Accomplished - Children Who Failed Hearing	% of Steps of Written Plan Accomplished - Children Who Failed Speech & Hearing	% of Steps of Written Plan Accomplished - Children Who Failed Other Tests
1	80 %	70.8%	NA
2	93.2%	50%	NA
3	100%	76.6%	NA
4	87.5%	75%	NA
5	66.6%	50%	100%
6	90.9%	64.8%	NA
7	100%	100%	100%
8	88%	75%	NA
9	88.7%	75%	NA
10	91.6%	94.4%	100%
11	87.5%	100%	NA

RESULTS OF FOLLOW-UP - REGULAR DAY CARE (continued)

Center	% of Steps of Written Plan Accomplished - Children Who Failed Hearing	% of Steps of Written Plan Accomplished - Children Who Failed Speech & Hearing	% of Steps of Written Plan Accomplished - Children Who Failed Other Tests
12	100%	100%	NA
13	66.6%	66.6%	NA
14	100%	100%	NA
15	42.8%	0%	NA
16	100%	100%	NA

Workshop Follow-Up Training Topics

Regular Day Care Centers

- The Referral Process
- Activities to enhance learning of the communicatively handicapped
- Hearing impairments and its implications
- Behavior of young Children
- Getting Parents Involved
- Activities to Enhance Visual-Motor Skills
- Parent Conferences
- Detection of communication and developmental disorders
- Detection of visual disorders in Children
- Cleft Palate and its implications
- Myringotomy tubes and middle ear pathology
- Self-Esteem of young Children

RESULTS OF EVALUATION

Regular Day Care Centers

Objective	Plan	Results
1. To identify children who who have communication impairments serious enough to affect learning.	To conduct individual screening to determine number of children who fail hearing, speech, language, and/or visual motor tests.	811 children were screened for communication impairments.
2. By the end of the first workshop, 95% of the teachers will have developed a written plan of action.	Proportion of teachers who developed a plan.	All teachers developed a written plan of action.
3. By the end of the year, 95% of the teachers will have complied with 75% of the steps outlined in their written plan.	Proportion of teachers who complied with at least 75% of the steps, based on professional judgement.	All Teachers complied with an average of 86.4% (hearing plans) and 75.6% (speech and language plans).
4. By the end of the year, 90% of the children picked up in the screen will have received subsequent professional evaluation and/or professional management.	The number of children who have had professional follow-up by end of the year.	86.4% of the children who failed the hearing screen had professional follow-up. 75.6% of those who failed speech and language had professional follow-up.
5. By the end of the year, 90% of the teachers will indicate that the services received from the Outreach Project increased their understanding, knowledge, and skills in serving the handicapped child.	a)Self-Assessment questionnaire administered during the follow-up visit with each teacher. This instrument has been tested and used with similar populations.	a)90% of the teachers completed the self-assessment questionnaire.
	b)Workshop evaluation form administered during each of the visits to the center.	b)90% - 100% of the teachers completed the workshop evaluation form. See next section for specific results.

RESULTS OF EVALUATION

Regular Day Care

Evaluation of Workshop

Please rate.

	Not Applicable	Low 1	2	3	4	High 5
1. The CLARITY of today's session.		0	0	2%	8%	9%
2. The USEFULNESS of the PRINTED MATERIALS used today.		0	2%	0	12%	86%
3. The USEFULNESS of the DISCUSSIONS.		0	0	4%	10%	86%
4. The USEFULNESS of the VIDEO-TAPES.	NA					
5. The OPPORTUNITY to EXPRESS my ideas and feelings.		0	0	6%	27%	67%
6. The OPPORTUNITY to ask QUESTIONS.		0	0	2%	19%	79%
7. The QUALITY of the ANSWERS to my questions.		0	0	2%	8%	90%
8. The USE of my IDEAS and WANTS		0	0	0	27%	73%
9. The ACCEPTANCE of my OPINIONS and FEELINGS.		0	0	4%	18%	78%
10. My comfort -- space, time, etc.		0	4%	8%	23%	65%

RESULTS OF EVALUATION

Regular Day Care

Evaluation of Workshop

"The Most Valuable Part Was . . ."

Results of the screen	44%
Developing the Written Plan of Action	20%
All	11%
Discussion	9%
Information on Speech and Language	9%
Testing information	7%

"The Least Valuable Part Was . . ."

None	86%
Hearing information	7%
Other teachers' plans of Action	7%

RESULTS OF EVALUATION

Regular Day Care

Evaluation of Follow-Up

Please rate.	Not Applicable	Low 1	2	3	4	High 5
1. The CLARITY of today's session.	0	0	0	24%	76%
2. The USEFULNESS of the PRINTED MATERIALS used today.	0	0	7%	30%	63%
3. The USEFULNESS of the DISCUSSIONS.	0	0	3%	10%	79%
4. The USEFULNESS of the VIDEO-TAPES.	0	0	0	0	0
5. The OPPORTUNITY to EXPRESS my ideas and feelings.	0	0	8%	25%	67%
6. The OPPORTUNITY to ask QUESTIONS.	0	0	5%	17%	78%
7. The QUALITY of the ANSWERS to my questions.	0	0	14%	14%	72%
8. The USE of my IDEAS and WANTS.	0	0	18%	25%	57%
9. The ACCEPTANCE of my OPINIONS and FEELINGS.	0	0	9%	20%	71%
10. My comfort -- space, time, etc.	0	0	3%	34%	63%

RESULTS OF EVALUATION

Regular Day Care

Evaluation of Follow-Up

"The Most Valuable Part Was . . ."

Developing the Written Plan for each child	27%
Results of the Screen	20%
Testing information	10%
Parent Involvement	7%
Activities to use in the classroom	7%
Information on follow-up	7%
Discussion	5%
Information on Learning	5%
Materials	2%
All	2%
Language Information	2%
Referral Information	2%
Discussion on Needs of Children	2%

"The Least Valuable Part Was . . ."

None	89%
Repetition	11%

FOLLOW-UP AND TRAINING - SPECIAL DAY CARE CENTERS

As proposed, Outreach returned to each of the six special day care centers for two follow-up visits. Results indicate that teachers accomplished an average of 93.9% of the steps of their Written Plan of Action for those children who failed hearing and 100% of the steps of their Plan for those children who failed speech and language tests. For those children who needed other evaluations, i.e. neurological, the teachers of the special day care centers had accomplished 100% of the steps of their Written Plan of Action. These figures are significantly higher than last year's results. In a population of already diagnosed handicapped children, it is particularly important that problems which can be medically treated, such as middle ear pathology, be identified. Handicapped children must have these follow-up services, if they are going to reach their potential. The earlier other handicapping conditions are identified, the greater the effects of therapeutic management. The Outreach Project has identified and seen that appropriate follow-up services are provided to these children in Special Day Care Centers. The second focus in the Special Day Care centers was on training the teachers to work with the communicatively handicapped child.

The following chart provides more information on the follow-up results of the Special Day Care centers.

RESULTS OF FOLLOW-UP - SPECIAL DAY CARE

Center	% of Steps of Written Plan Accomplished - Children Who Failed Hearing	% of Steps of Written Plan Accomplished - Children Who Failed Speech & Language	% of Steps of Written Plan Accomplished - Children Who Failed Other Tests
1	100%	100%	100%
2	100%	100%	NA
3	80%	NA	NA
4	93%	100%	100%
5	100%	100%	NA
6	90.4%	NA	NA

WORKSHOP FOLLOW-UP TRAINING TOPICS
SPECIAL DAY CARE CENTERS

- Improving Diagnostic Awareness
- Parent Conferences
- Activities to enhance learning of communicatively impaired children
- Parent meetings
- Hearing impairment and its implications
- Referral Process for comprehensive evaluation
- Structuring the environment to enhance learning
- Charting behavioral responses
- Effect of sedating medication on learning and motivation
- Deafness and its implications
- Involving parents
- Self-esteem of young children
- Auditory skill development

RESULTS OF EVALUATION

Special Day Care Centers

Objective	Plan	Results
1. To identify children who have communication impairments serious enough to affect learning.	To conduct individual screening to determine number of children who fail hearing, speech, language, and/or visual motor tests.	25% were screened for hearing, speech, language, and/or visual-motor problems.
2. By the end of the first workshop, 95% of the teachers will have developed a written plan of Action.	Proportion of teachers who developed a plan.	100% of the teachers developed a written plan of action.
3. By the end of the year, 95% of the teachers will have complied with 75% of the steps outlined in their written plan.	Proportion of teachers who complied with at least 75% of the steps, based on professional judgement.	All Teachers complied with an average of 93.9% (hearing plans) and 100% (speech and language plans).
4. By the end of the year, 90% of the children picked up in the screen will have received subsequent professional evaluation and/or professional management.	The number of children who have had professional follow-up by end of the year.	94% of the children who failed hearing had professional follow-up. 100% of the children who failed speech and language had professional follow-up.
5. By the end of the year 90% of the teachers will indicate that the services received from the Outreach Project increased their understanding, knowledge, and skills in serving the handicapped child.	a)Self-Assessment questionnaire administered during the follow-up visit with each teacher. This instrument has been tested and used with similar populations.	a)90% of the teachers completed the self-assessment questionnaire.
	b)Workshop evaluation form administered during each of the visits to the center.	b)100% of the teachers completed the workshop evaluation form. See next section for specific results.

RESULTS OF EVALUATION

Special Day Care

Evaluation of Workshop/Follow-Up #1

Please rate.

	Not Applicable	Low 1	2	3	4	High 5
1. The CLARITY of today's session.	____	0	0	0	17%	83%
2. The USEFULNESS of the PRINTED MATERIALS used today.	____	0	0	4%	39%	57%
3. The USEFULNESS of the DISCUSSIONS.	____	0	0	0	17%	83%
4. The USEFULNESS of the VIDEO-TAPES.	X					
5. The OPPORTUNITY to EXPRESS my ideas and feelings.	____	0	0	0	21%	79%
6. The OPPORTUNITY to ask QUESTIONS.	____	0	0	0	13%	87%
7. The QUALITY of the ANSWERS to my questions.	____	0	0	0	19%	81%
8. The USE of my IDEAS and WANTS.	____	0	0	4%	39%	57%
9. The ACCEPTANCE of my OPINIONS and FEELINGS.	____	0	0	4%	26%	70%
10. My comfort -- space, time, etc.	____	0	0	22%	35%	39%

RESULTS OF EVALUATION

Special Day Care Center

Evaluation of Workshop/Follow-Up #1

"The Most Valuable part was . . ."

Developing Written Plan of Action	26%
Materials Used	21%
Discussion	17%
Language information	14%
Listening skills	7%
Information on other skills	7%
All	4%
Classroom Activities	4%

"The Least Valuable Part was . . ."

None	67%
Information on testing Procedure	11%
Review of Language	11%
Materials	11%

RESULTS OF EVALUATION

Special Day Care Centers

Evaluation of Workshop/Follow-Up #2

Please rate.

	Not Applicable	Low 1	2	3	4	High 5
1. The CLARITY of today's session.	____	0	0	4%	13%	83%
2. The USEFULNESS of the PRINTED MATERIALS used today.	____	0	0	9%	23%	68%
3. The USEFULNESS of the DISCUSSIONS.	____	0	0	0	17%	83%
4. The USEFULNESS of the VIDEO-TAPES.	X					
5. The OPPORTUNITY to EXPRESS my ideas and feelings.	____	0	0	0	25%	75%
6. The OPPORTUNITY to ask QUESTIONS.	____	0	0	0	17%	83%
7. The QUALITY of the ANSWERS to my questions.	____	0	0	0	23%	77%
8. The USE of my IDEAS and WANTS.	____	0	0	8%	33%	59%
9. The ACCEPTANCE of my OPINIONS and FEELINGS.	____	0	0	9%	23%	68%
10. My comfort -- space, time, etc.	____	0	0	25%	33%	42%

RESULTS OF EVALUATION

Special Day Care

Evaluation of Workshop/Follow-Up #2

"The Most valuable part was . . ."

Results of the testing	40%
Discussion	16%
Materials	12%
Testing information	12%
Hearing information	8%
Written Plan of Action	8%
Follow-up on each child	4%

"The Least valuable part was . . ."

None	100%

TRAINING AND TECHNICAL ASSISTANCE IN PUBLIC SCHOOL KINDERGARTENS

In addition to the training of day care teachers previously mentioned, Outreach also successfully planned and completed training of teachers in rural public school kindergartens in Tennessee. In cooperation with the Tennessee Department of Education, the two educational districts with the least amount of available resources were selected to participate. A total of 21 counties were represented at an initial workshop and a follow-up visit. A total of 46 teachers (proposed 45) received the training and technical assistance. The following chart provides more information:

Northwest Development District	Upper Cumberland Development District
Counties	Counties
Obion	Macon
Weakley	Clay
Henry	Pickett
Dyer	Fentress
Gibson	Overton
Carroll	Jackson
Crockett	Smith
	Putnam
	Cumberland
	DeKalb
	White
	Van Buren
	Warren
	Cannon

A look at the data from the public school kindergarten teachers training and technical assistance revealed there was essentially no difference in the measured demographic indicators between the two groups (Northwest District and Upper Cumberland District). The following on teacher characteristics provides more information:

Teacher Characteristics

District	Total # of Teachers	Average Age of Children Taught	Average Years of Teaching	Number of Teachers Who Are Parents
Northwest	17	5 years	7.3 years	10
Upper Cumberland	29	5 years	7.2 years	11
Combined Group	46	5 years	7.2	21

The focus of the training and technical assistance was two-fold:

(1) on strategies for identifying possible communication problems and strategies to enhance the learning capabilities of communicatively-handicapped children;

(2) on strategies teachers can use to encourage parents to enhance their child's learning and development.

Identifying Communication Problems

Information on identifying communication handicaps was presented through the use of lecture, demonstration, discussion, audio-visual and printed materials. Results of data reveal that teachers became more sensitive to potential communication handicaps, that is, teachers were more apt to be concerned about a child's speech or hearing skills.

For evaluation purposes, teachers were given an audio test, in which they attempted to identify the children's recorded voices as indicative of a problem or not. Each teacher was asked to listen, and then to answer yes or no to the question "Would you be concerned about this child's speech or hearing?" This test was given at both the initial and the follow-up workshops.

The test was composed of ten yes/no questions, with a total possible

correct score of 10. Analysis was based on the percent correctly answered (possible range = 0 to 100%).

Table X and Y show the data for each group.

Table X

Northwest Group

pre-test mean = 76%

range = 60-90%

post-test mean = 66%

range = 50-90%

Table Y

Upper Cumberland Group

pre-test mean 80%

range = 50-90%

post-test mean = 62%

range = 20-80%

As can be seen, there was a significant ($P < .05$ for the Northwest group and $P < .01$ for the Upper Cumberland group) drop in scores from pre to post on the communication difficulty identification test. This is caused by an increased sensitivity on the part of the teachers to the possibility of communication difficulties. All respondents identified more than the correct number of speech problems on the post-test. That is, at the follow-up visit, all were less willing to say "No, I would not be concerned with this child's speech or hearing". They consistently erred in a conservative (Type II) direction, which would result in more referrals of non-problem children, but would insure against not referring a child with a problem. Thus, the teachers were much more sensitive to potential communication problems at the follow-up visit.

Strategies to Enhance Learning of Communicatively-Impaired Children

Classroom strategies for teachers to use to enhance the learning of communicatively-impaired children were discussed and demonstrated at the initial workshop and the follow-up visit. The printed materials utilized

were especially helpful to teachers. Goal setting by the teachers in the area of classroom strategies was a major part of the workshop. Some sample speech and language-related goals are listed below:

(1) to go back to the classroom and listen to some specific children for communication problems;

(2) to try expansion technique for speech and language handicapped children;

(3) to share this information with other teachers'

(4) to use "corrective feedback" at least three times;

(5) to use the Listen, Talk, Do activity cards with handicapped children;

(6) to use activities in the packet;

(7) to refer a specific child for a hearing test;

(8) to screen the hearing of all students in speech to see if hearing has anything to do with their problem.

The project staff attempted to guide the goal-setting in two ways: to encourage appropriate, specific goal-setting, and to limit the number of goals to a manageable number.

At each of the follow-up workshops, the participants discussed how well they had achieved their goals and the perceived effects of their actions. The project staff then categorized this information for program monitoring and modification purposes.

In summary, the participants seemed to set realistic, manageable and appropriate goals, most worked at fulfilling them, and most found many more positive results than negative.

Strategies Teachers Can Use To Encourage Parents To Enhance Their Child's Learning and Development

Discussion and use of the printed materials were stated by teachers to be the most valuable part of the parent involvement section of the workshop and follow-up visit. Teachers had the opportunity to mutually share their own experiences in working with parents. The Outreach Project staff strived to help teachers become more sensitive to parents and therefore, more effective in working with parents. Specific strategies and activities were discussed. Teachers made specific goals in encouraging parents to enhance the learning of their child. Sample goals are included below:

(1) to let parents know where to find me;

(2) to have parents suggest the PTA program;

(3) to tell parents something good about their child;

(4) to know every parent by name and face at the October 19th Conference;

(5) to explain to parents the benefits of providing activity for children in community;

(6) to involve parents in Halloween Carnival;

(7) to be positive toward parents;

(8) to order pamphlets for parents

Again, teachers set realistic, attainable goals for themselves and strived to meet those goals. At the follow-up visit, the goals were evaluated and new strategies discussed.

DISSEMINATION

Over the life of the Outreach Project, the demand for reprints, printed materials, and audio-visual media has grown substantially. In part, this increase may be attributed to the addition of new slide-tape, videotape, and printed materials to the available inventory of the project. But to a greater degree, we believe this increase is probably due to several other factors:

(1) the relevancy of the content to professionals, paraprofessionals, and parents interested in facilitating the language development of communicatively-impaired and normal preschool children;

(2) the professional quality of the finished materials, which compares favorably to those available commercially;

(3) the wide exposure the materials have received through workshops, exhibits, professional presentations, and the dissemination process itself.

Thus, between July 1, 1978 and June 30, 1979 we have responded to 6,157 requests for printed information and/or reprints (single copies provided at no charge). We have also handled a total of 611 orders for the purchase (or rental) of our materials. Orders and requests have been received from all states and several foreign countries. A breakdown of the orders processed indicates that 611 orders have been handled during this period, representing

the distribution of nearly 6,157 pieces of print media, 140 audio-visual programs, and 18 infant hearing systems. (See Outreach Dissemination Activities Chart).

OUTREACH DISSEMINATION ACTIVITIES

Months	# of Orders	# of Print Items	# of AV Items	# of Infant Hearing Screening Systems
July '78	43	858	2	3
Aug. '78	36	642	43	3
Sept.'78	37	984	15	5
Oct. '78	66	406	4	2
Nov. '78	24	250	3	0
Dec. '78	58	194	3	1
Jan. '79	66	213	8	1
Feb. '79	46	398	3	1
March'79	46	700	6	0
April'79	78	467	14	0
May '79	64	763	21	2
June '79	47	252	18	0
TOTALS	611	6,157	140	18

ADDITIONAL OUTREACH ACTIVITIES

Training and Technical Assistance

"Parent/Family Involvement--What, Why, and How" Pediatric Language Institute, University of Tennessee, Knoxville, TN.

"Hearing Disorders in Children" Shelbyville-Bedford County Child Development Center, Shelbyville, TN.

"Mainstreaming Children with Speech and Language Disorders" Head Start Teachers, Montgomery, AL.

"Parents as Language Teachers" Pediatric Language Institute, University of Tennessee, Knoxville, TN.

"Working With Parents" Head Start Directors and Teachers, Montgomery, AL.

"Developing Auditory Skills in Children" Michael Dunn Rehabilitation Center, Kingston, TN.

"Special Feelings of Parents of Handicapped Children" Parents of Handicapped Children, Shelbyville, TN.

"Helping Handicapped Children Feel Good About Themselves" Parents and teachers, Shelbyville-Bedford County Child Development Center, Shelbyville, TN.

"The Hearing Impaired Child-Diagnosis and Management" Student Nurses, Belmont College, Nashville, TN.

"Language Development in Hearing Impaired and Multihandicapped Children" Michael Dunn Rehabilitation Center, Kingston, TN.

"Enhancing Speech and Language Skills in the Classroom, Crocus Cookeville, August 2

"Identifying Children with Speech and Language Problems" NAYC, Nashville August 24-25, 1978

"Identifying Children with Speech and Language Problems" TAYC, Knoxville October 18-20, 1978

"How Parents can Help" Parent-Child Center Louisville, KY February 16, 1979

"The Aural-Oral Child", Presentation, Deaf Awareness Week, Memphis
Saturday March 31, 1979

"Classroom Strategies for the Communicatively Impaired Child,"
Elk and Duck Head Start April 12, 1979

"Normal Speech Language Development", Birmingham Head Start,
Birmingham, AL April 19, 1979

"Enhancing Language Development in the Young Child" CEC National
Convention, Dallas, Texas April 22-27, 1979

"Involving Parents", Parent-Child Center, Louisville, KY
May 11, 1979

"Normal Language and Speech Development", Maternal Child and Health,
Nashville, May 16, 1979

Consultations

Fayetteville Public Schools, Fayetteville, TN

Bedford County Child Development Council, Bedford County, TN

Children Intervention Project, McHarry Hospital, Nashville, TN
July 20-21, 1978

Columbus, Ohio Public School System, 2 day presentation,
August 10-11, 1978

Knoxville Head Start, Knoxville, TN
August 31, 1978

Peoria City School System, Peoria, Ill, 2 day presentation
January 18-19, 1979

Belfountaine School System, Belfountaine, Ohio, 2 day presentation
February 1-2, 1979

Peoria City Schools, Peoria, Ill.
March 4, 1979

Community Services

Member of Task Force: Children's Issues, Nashville, TN

Member; Health Advisory Board, Metropolitan Action Head Start, Nashville, TN

Hearing Screening: Bedford County Child Development Council, Saturday
May 19, 1979

Member of Task Force: State Implementation Grant

SUMMARY

The results of the screening of children enrolled in Tennessee day care indicate that there are a significant number of children in this population for whom specialized educational services are needed. To date, approximately 10% of the children screened in the Regular Day Care centers failed the speech/language screens. This figure closely parallels the figure obtained in the screening of Head Start children (11%). Thirty-five percent (35%) of the children in Special Day Care centers failed the speech and language screen.

Results of the hearing screen revealed that 22% of the children screened in Regular Day Care centers and 29% of the children screened in Special Day Care centers failed the hearing screen. These figures are significantly higher than those obtained in the previous year's screening. The use of sensitive impedance testing (which tests for middle ear problems) accounts for this increase. Eight percent (8%) of the Head Start Children failed the hearing screen (no impedance testing was conducted).

In the Regular Day Care center population, 27% of children screened failed the visual-motor screen, in the Head Start population, 36% of the children failed the visual-motor screen, and 36% of the children tested in the Special Day Care centers failed the visual-motor screen.

Outreach provided follow-up training to 16 Regular and Special Day Care centers.

Available results indicate that in the Special Day Care centers a majority of the children have received the necessary follow-up services (100% of follow-up accomplished on children who failed speech and language and 94% on those who failed hearing). In the Regular Day Care centers, 75.6% of follow-up services were obtained for those children who failed the speech and language tests and 86.4% of those who failed hearing. These figures are significantly higher than follow-up services obtained in past screening efforts. These results are due to the increased efforts by the Outreach staff, particularly the additional training on referral process and the development of a Written Plan of Action for each child. Thus, it is imperative that screening and follow-up services be provided to young preschool children, in order that early detection and treatment prohibit unnecessary and irreversible handicaps in later life.

A total of 46 teachers in rural public school kindergartens have received training and technical assistance. Two developmental districts were selected by the Tennessee State Department of Education to be the sites of the initial workshop and follow-up visit. Data suggests that teachers became more aware of potential communication problems, learned classroom techniques and activities to enhance the communicatively handicapped child's learning and development, made goals for themselves in the areas of speech and language stimulation and parent involvement, and learned new strategies for involving parents in the education of their children.

The Urban Observatory Outreach Project has had an important impact on day care and public school kindertartens, whose responsibilities and enrollments of handicapped children appear to be increasing each year. The Outreach Project has demonstrated the viability and the need for providing young children in day care with screening and follow-up services and for providing day care and kindergarten teachers with specific training and technical assistance.

The media dissemination activity continues as a successful component of the Outreach Project. Print or audiovisual Resources (6,297) have been provided to many individuals who serve young preschool handicapped children and their families; thus, ultimately improving services provided to those children and their families.

Whenever possible, the Outreach Project "reached out" to others that requested the special services of its staff. Training and technical assistance and consultation was provided to professionals and paraprofessionals.

The Urban Observatory Project has indeed had a great impact on preschool handicapped children and their families. We are proud of this year's accomplishments and believe them to be significant and meaningful to the lives of handicapped preschool children in Tennessee and elsewhere.

APPENDICES

Date of birth _____ Date _____

HOW DO YOU RATE YOURSELF?

1 Strongly Agree 2 Agree 3 Makes no difference to me 4 Disagree 5 Strongly Disagree

1.	It is important that parents know that their child is being screened for communication problems.	1	2	3	4	5
2.	I should have the parents take the child to the appropriate place for follow-up; this is their responsibility.	1	2	3	4	5
3.	If a child fails a screening test and the parents do not think there is a problem, I should drop the the referral procedures.	1	2	3	4	5
4.	If a child fails the hearing section of the screening, he should go only to an E.N.T. specialist (ear, nose, and throat doctor).	1	2	3	4	5
5.	I shouldn't tell parents that their children are being screened for communication problems because they may become upset over nothing.	1	2	3	4	5
6.	If a child fails a screening test but I do not think there is a problem, then I should not refer him/her.	1	2	3	4	5
7.	If parents do not want their child screened, I should obey their request.	1	2	3	4	5
8.	If parents cannot/will not pay for the child to to to the Dr., I can get money from other sources.	1	2	3	4	5
9.	If a child fails the screening test, I should tell the parents.	1	2	3	4	5
10.	It is important that parents be allowed to come to the center on screening day so they will be informed about their child.	1	2	3	4	5
11.	If a child fails the language or speech section of the screen, it means he/she has a communication problem.	1	2	3	4	5
12.	If a child fails the hearing screen, he should have his hearing checked again after the doctor says there is no problem.	1	2	3	4	5
13.	If a child passes the screening tests, I should tell his/her parents.	1	2	3	4	5
14.	If a child fails a screening test and leaves our program, I should notify the new center where he is to be enrolled that he failed a screening test.	1	2	3	4	5
15.	If a child fails the language section of the screening he should be seen at a Speech and Language Clinic.	1	2	3	4	5

I am a _____ at _____ . I work with _____
(teacher, aide, social worker, director) (name of center)
year old children. I have been teaching for _____ years. I am a parent ___ yes ___no;
number of children ___.

EVALUATION OF WORKSHOP DATE: _____

	Please rate.	Not Applicable	Low				High
1.	The CLARITY of today's session.	____	1	2	3	4	5
2.	The USEFULNESS of the PRINTED MATERIALS used today.	____	1	2	3	4	5
3.	The USEFULNESS of the DISCUSSIONS.	____	1	2	3	4	5
4.	The USEFULNESS of the VIDEO-TAPES.	____	1	2	3	4	5
5.	The OPPORTUNITY to EXPRESS my ideas and feelings.	____	1	2	3	4	5
6.	The OPPORTUNITY to ask QUESTIONS.	____	1	2	3	4	5
7.	The QUALITY of the ANSWERS to my questions.	____	1	2	3	4	5
8.	The USE of my IDEAS and WANTS.	____	1	2	3	4	5
9.	The ACCEPTANCE of my OPINIONS and FEELINGS.	____	1	2	3	4	5
10.	My comfort -- space, time, etc.	____	1	2	3	4	5

1. The MOST VALUABLE PART was ...

2. The LEAST VALUABLE PART was ...

3. What I WANTED TO SAY, but DIDN'T was ...

4. For the FOLLOW-UP VISIT, I would like INFORMATION on ...

5. Other COMMENTS: (use back if necessary)

I am a _____ at _____
(teacher, aide, director, social worker, etc.) (name of center)
I work with _____ year old children. I have been teaching for _____ years.
I am a parent ____ yes _____ no. Number of my own children _____.

PRESCHOOL SCREENING SUMMARY REPORT

DATE _____

STATE _____ COUNTY _____ PROGRAM _____ TEACHER _____

CENTER _____ CENTER ADDRESS _____

_____

_____ 1. These children passed all four parts of the screen (hearing, speech, language, visual motor).

_____ 2. These children were found to have speech and/or language difficulties and should be referred to a speech and hearing clinic for further evaluation and/or therapy.

_____ 3. These children failed the hearing screening and should be referred to a physician for medical evaluation of the ears.

_____ 4. These children failed the visual motor screening (paper pencil skills) and results indicated functioning one year or more below their chronological age. Special attention should be given to the development of these skills by the teacher in the classroom.

_____ 5. TEACHER ALERT: These children do not need further evaluation at this time but if no improvement or change is noted in a reasonable amount of time (6 months), the child should be referred for evaluation in the area noted.

TOTAL NUMBER OF CHILDREN TESTED IN THIS TEACHER'S CLASSROOM _____.

DATE: _____

PLACE: _____

_____

"PLAN OF ACTION"

CHILD'S NAME(S) 1. _____ FAILED: _____

2. _____

3. _____

4. _____

5. _____

CHILD'S NAME(S) 1. _____ FAILED: _____

2. _____

3. _____

4. _____

5. _____

It is important that you begin the "Plan of Action" today. Effective follow-up for the children involves parents, staffs, and professionals. The Outreach staff will be back for the follow-up visit on _____.

Preschool Projects Urban Observatory of Nashville-Davidson Co. 1101 17th Ave. South Nashville, TN 37212

Preschool Screening Record

I. Information: *please print only!*

State:
County:
Program Name: (if applicable):
Teacher Name: *last* *first*

Center Name:
Center Address: *number* *street*
city *state* *zip*
Center Phone Number: *area code* ( ) ☐☐☐ ☐☐☐☐

II. Identifying Information

Child's Name: *last* *first* *m. initial*
Address: *number* *street*
city *county*
Parents' Name: *last* *first*

The following information is necessary so that speech patterns may be related to ethnic origin.

Ethnic Origin *(check)*
☐ Black ☐ White ☐ Asian ☐ Amer. Indian ☐ Spanish Speaking ☐ Other

Sex ☐ M ☐ F

Program Location *(check)* ☐ Urban ☐ Suburban ☐ Rural

Test date *yr.* *mo.* *day*
Birthdate *yr.* *mo.* *day*

III Hearing Screening Pure tone Audiometry

Test Reliability Good ☐ Questionable ☐ Poor ☐

Screening level (Adjusted to noise level of room) _____

	Pass	Fail
Screen Right Ear		
Left Ear		

Thresholds

HZ	250	500	1K	2K	4K	6K	8K
R							
L							

Tympanogram Type *(check ✓)*

	Normal	Flat or Rounded	Negative Pressure
R			
L			

Reflex *(check ✓)* 105dB signal

	1000 HZ		2000 HZ	
	Present	Absent	Present	Absent
Sd. in Rt. ear				
Sd. in left ear				

Pre-Screening General Information:

IV. Speech Articulation (Goldman Fristoe Test of Articulation)

Conversational Speech Intelligibility *(check ✓ one)* Good ☐ Acceptable ☐ Fair ☐ Poor ☐ Comment _____

Mark errors as follows: Substitution indicate error over sound number. *Omission*-dash (—) over sound number. *Distortion*-(X) over sound number

1 HouSe 2 TelePHone 3 CuP 4 GuN 5 kNiFe 6 WinDow 7 waGon 8 WHeel 9 chicKen 10 ZiPPer 11 SciSSorS 12 DucK 13 YeLLow 14 Vacuum 15 MatCHes

16 Lamp 17 SHoVel 18 caR 19 RaBBit 20 FiSHing 21 CHurCH 22 feaTHer 23 PenCils 24 THis 25 THat 26 caRRoT 27 oranGe 28 baTH 29 TuB 30 BaTH 31 THumb 32 fINGer

33 rING 34 Jumping 35 paJamas 36 PLane 37 BLue 38 BRuSH 39 DRuM 40 FLaG 41 saNta 42 CLaus 43 CHRistMas 44 TRee 45 SQUirrel 46 SLeeping 47 beD 48 STaVe

Total number of sound errors _____ /73

V. Language Syntax (Brown, Fraser 1963) Indicate number of incorrect sentences _____ /13

Correct sentences indicated by check (✓), sentences in error should be marked appropriately or written as imitated.

1. I showed you the book _____
2. I am very tall _____
3. It goes in a big box _____
4. Read the book _____
5. I am drawing a dog _____
6. I will read the book _____
7. I can see a cow _____
8. I will not do that again _____
9. I do not want an apple _____
10. Do I like to read books? _____
11. Is it a car? _____
12. Where does it go? _____
13. Where shall I go? _____

Comment: _____

VI. Visual Motor Skills: (Berry-Buktenica Developmental Test of Visual Motor Integration)

Circle number correct (raw score) and corresponding developmental age by sex.

Child used: *(check ✓)* Right hand ☐ Left hand ☐ Both hands ☐

Raw Score	Male	Female	Raw Score	Male	Female	Raw Score	Male	Female
1	2-10	2-10	6	4-6	4-4	11	6-0	5-10
2	3-0	3-0	7	4-9	4-8	12	6-5	6-2
3	3-2	3-2	8	5-0	4-11	13	6-10	6-7
4	4-1	3-10	9	5-3	5-3	14	7-4	7-2
5	4-4	4-1	10	5-7	5-6	15	7-10	7-11

Alternate Test: Imitates drawing
check (✓) successful imitations

- ☐ Linear scribble
- ☐ Circular scribble (2 yr)
- ☐ ○ Circle (3 yr)
- ☐ + Plus (3½ yr)
- ☐ □ Square (5 yr)
- ☐ △ Triangle (5½-6 yr)

Comments: _____

VII. Recommendations *check (✓) appropriate box for each area:*

	Pass	Fail	Needs Further Testing	Teacher Alert	Could Not Test
Hearing					
Visual-motor					
Speech					
Language					

Post-Screening Comments and Recommendations: _____